PIM2 Protein, Human (His)

Cat. No.:	HY-P701747
Synonyms:	PIM2; Serine/threonine-protein kinase pim-2; Pim-2h
Species:	Human
Source:	E. coli
Accession:	Q9P1W9 (M1-P311)
Gene ID:	11040
Molecular Weight:	

PROPERTIES

Appearance	Solution.
Formulation	Supplied as a 0.22 μm filtered solution of 50 mM Tris-HCl, pH7.5, 200 mM NaCl, 20% glycerol.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconsititution	Please use rapid thawing with running water to thaw the protein.
Storage & Stability	Stored at -80°C for 1 year. It is stable at -20°C for 3 months after opening. It is recommended to freeze aliquots at -80°C for extended storage. Avoid repeated freeze-thaw cycles.
Shipping	Shipping with dry ice.

DESCRIPTION

Background	The PIM2 protein, a proto-oncogene with serine/threonine kinase activity, plays a crucial role in cell survival and proliferation by exerting its oncogenic activity through multiple mechanisms. It regulates MYC transcriptional activity, cell cycle progression, and cap-dependent protein translation. Phosphorylation of MYC by PIM2 enhances MYC protein stability, resulting in increased transcriptional activity and potentially explaining the robust synergism between these two oncogenes in tumorigenesis. PIM2 also mediates survival signaling by phosphorylating the pro-apoptotic protein BAD, leading to the release of the anti-apoptotic protein Bcl-X(L)/BCL2L1. Moreover, PIM2 positively regulates the I-kappa-B kinase/NF-kappa-B cascade, promoting cell survival in response to various proliferative signals. It facilitates growth factor-independent proliferation by phosphorylating cell cycle factors such as CDKN1A and CDKN1B. Additionally, PIM2 is involved in the positive regulation of chondrocyte survival and autophagy in the epiphyseal growth plate.

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